

ARISTARKHOVA, L.B.

Correlation of continental Quaternary sediments in the  
northeastern Caspian Sea region with sediments in Caspian  
transgressive overlaps. Sov.geol. 5 no.11:105-110 N '62.  
(MIRA 15:12)

1. Vsesoyuznyy aerogeologicheskiy trest.  
(Caspian Depression—Geology, Stratigraphic)

VOSKRESENSKIY, S.S.; POSTOLENKO, G.A.; SIMONOV, Yu.G.; PATYK-KARA,  
N.G.; ANAN'YEV, G.S.; PIMENOVA, R.Ye.; YEVTEYEVA, I.S.;  
KUZNETSOVA, L.T.; SOROKINA, Ye.P.; ZORIN, L.V.;  
SLADKOPEV'TSEV, S.A.; ARISTARKHOVA, L.B.; MEDVEDEVA, N.K.;  
LOPATINA L.I., red.

[Geomorphological studies; work experience in southeastern  
Transbaikalia, eastern Fergana; central Kazakhstan, and  
the Caspian Lowland] Geomorfologicheskie issledovaniia;  
opyt rabot v Iugo-Vostochnom Zabaikal'e, Vostochnoi Fergane,  
TSentral'nom Kazakhstane i Prikaspiiskoi nizmennosti. Mo-  
skva, Izd-vo Mosk. univ., 1965. 275 p. (MIRA 18:7)

ARISTARKHOVA, L.B.

Conference on the use of geomorphological methods in petroleum  
and gas prospecting. Vest.Mosk.un.Ser.5: Geog. 20 no.4:91-93  
Jl-Ag '65. (MIRA 18:12)

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

1ST AND 2ND ORDERS

CA

ARISTARKHOVA, M.V.

Apparatus for the determination of small amounts of hydrocarbons in air. M. V. Aristarkhova. *Doklady Akad. Nauk SSSR* No. 7, 18-19. Translated in *Foreign Petroleum Tech.* 7, 383-90 (1939). Description of an app. operated by combustion, absorption with C and cooling with liquid O. The app. is suitable for soil gas analysis after a few modifications. A. A. R.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

1ST AND 2ND ORDERS

<p>ARISTARKHOVA, M.V.</p>		<p>PROCESSES AND PROPERTIES INDEX</p>	
<p>ca</p>		<p>Apparatus and method for determining small amounts of hydrocarbon gases. M.V. Aristarkhova. <i>Zashchita</i> Lab. 9, 1096-1101(1940): cf. C. A. 34, 2651. Details of app. and procedure developed by the Geophysics Trust for detg. small amts. of hydrocarbon gases. The app. can be used for gas mixts. of 0.03-5 cc. and higher. The gas mixt. is first fractionated and then each fraction is analyzed by detg. the C or H no. In detg. the C no. measurements are also made of the contraction, vol. of</p>	
<p>O<sub>2</sub> entering into the reaction, and residual N<sub>2</sub>. The app. can be used for analyzing natural gases, cracked gases and various gas mixts. contg. hydrocarbons, N<sub>2</sub> and N compds. The results of detns. are tabulated.</p>		<p>B. Z. Kamikh</p>	
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>FROM DIVISION</p>		<p>FROM DIVISION</p>	
<p>FROM DIVISION</p>		<p>FROM DIVISION</p>	



ARISTARKHOVA, V.I.

Formation of amino acids following the decomposition of linen  
in soil. Izv. AN SSSR. Ser. biol. 31 no.1:121-128 Ja-F '66.  
(MIRA 19:1)

1. Institut mikrobiologii AN SSSR. Submitted June 22, 1965.

STROKOV, G.I., inzh.; ARISTAROV, N.V., inzh.; CHEBOTKOV, B.G., inzh.

Rapid assembly-line construction of navigable structures of the  
Kremenchug Hydroelectric Power Station. Gidr.stroi. 30 no.2:  
12-15 F '60. (MIRA 13:5)  
(Kremenchug Hydroelectric Power Station)



ARISTAROV, N.V., inzh.; KONONOV, I.V., kand.tekhn.nauk

Comparative evaluation of prefabricated linings. Energ.stroi.  
no. 30461-65 '62. (MIRA 16:2)

1. Stroitel'stvo Kremenchugskoy gidroelektrostantsii (for Aristarov).
2. Nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii stroitel'nogo proizvodstva Akademii stroitel'stva i arkhitektury UkrSSR.

(Precast concrete construction)

ARISTE, A.P.; VEL'MERE, E.E.; TISLER, Yu.A.

Automatic control unit using transistor elements for diesel generators.  
Priborostroenie no.7:16-18 J1 '63. (MIRA 16:9)

RUMANIA/Microbiology - Microbes Pathogenic for Man and Animals. F  
Dacteria. Mycobacteria.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99494

Author : Ionescu-Mihaiesti, C., Dimboviceanu, Aristia-Soru, E.,  
Darber, C., Radulesku, E., Gancevici, UT, Sternberg, M.

Inst : Rumanian Academy

Title : Complete Antigen of the Glucido-lipido-nucleopolipptide  
Type Extracted from Tubercle Bacilli of the Human Type  
H<sub>37</sub>RV.

Orig Pub : Comun. Acad. RFR, 1956, 6, No 10, 1245-1250

Abstract : The authors obtained a complex of the glucido-lipido-  
nucleopolipeptide type by subjecting defatted microbe  
cells to the action of a borate buffer (pH 8.2). The  
obtained complex contains 30.48% of nucleinic acids  
(in nucleic acid and 15.98% of ribonucleic acid), 47%

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RUMANIA/Microbiology - Microbes Pathogenic for Man and Animals. F  
Bacteria. Mycobacteria.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99494

of reducing sugars and 9.74% of lipids. Following acid hydrolysis of this complex, 13 amino acids were detected with the aid of chromatography, among them 34.2% of alanine, 18.5% of glutaminic acid, 10.24% of aspariginic acid, and 8.37% of cysteine; besides that, 5 reducing sugars were found (16.5% of arabinose, 10% of galactose, 5.11% of mannose, 3.31% of ribose and 2.8% of glucose). The complex is split with the aid of electrophoresis into 4 fractions; they may be identified by the rate of migration with the following serum proteins: delta-globulin (8%), gamma-globulin (67%), beta-globulin (10%), and albumin (15%). The obtained complex possesses the properties of a complete antigen. Injected into rabbits, it causes the appearance in the serum of precipitins reacting with tuberculo-protein in dilutions of up to 1:6,250-1:12,500, and with the complete antigen in

Card 2/3

- 99 -

RUMANIA/Microbiology - Microbes Pathogenic for Man and Animals. F  
Bacteria. Mycobacteria.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99494

dilutions of 1:1,600-1:3,200. -- L.M. Model'

Card 3/3

ZAMFIR, C., general major dr.; ARISTOTEL, Popescu medic emerit, locotenent  
colonel

Incidents and complications caused by the administration of antibiotics.  
Med. inter., Bucur 13 no.6:895-901 Jo '61.  
(ANTIBIOTICS toxicology)

ARISTOV, A., polkovnik

Military books in 1963. Komm. Vooruzh. Sil 3 no.1:89-92 Ja  
'63.

(MIRA 1:1)

(Bibliography--Military art and science)  
(Publishers and publishing)

ARISTOV, A. A. (Junior Scientific Collaborator, Kazan' Veterinary Institute), and  
ABIZAROV, Yu. Sh., and KAZAKOV, I. F. (Candidates of Veterinary Sciences),

"Application of "propolis" ointment [bee glue] for the treatment of cattle  
affected with the foot-and-mouth disease".

Veterinariya, Vol. 38, No. 2, 1961, p. 37.



KAZAKOV, I.F., kand. veterin. nauk; ABIZAROV, Yu.Sh., kand. veterin. nauk;  
ARISTOV, A.A., mladshiy nauchnyy sotrudnik

Treating foot-and-mouth disease in cattle using propolis ointment.  
Veterinariia 38 no.2:37-38 F '61. (MIRA 18:1)

1. Kazanskiy veterinarnyy institut.

HRISJOV H.D.

NESMEYANOV, An.N.; NAUMENKO, I.A.. kandidat tekhnicheskikh nauk, inzhener-  
podpolkovnik, redaktor; ARISTOV, A.D., podpolkovnik, redaktor;  
LEVINSKAYA, N.Z., tekhnicheskii redaktor.

[Radioactive elements and their use] Radioaktivnye elementy i ikh  
primeneniye. Moskva, Voen.izd-vo Ministerstva oborony SSSR, 1955.  
123 p. [Microfilm] (MLRA 8:5)  
(Radioisotopes)

ACC NR: AP6024295

(A)

SOURCE CODE: UR/0422/66/000/003/0041/0044

AUTHORS: Gusev, N. F. (Candidate of technical sciences); Aristov, A. I. (Engineer)

ORG: none

TITLE: Estimating the mechanical reliability of structures and assemblies, taking into account their possible failures

SOURCE: Standarty i kachestvo, no. 3, 1966, 41-44

TOPIC TAGS: reliability, probability, mechanical fatigue, cyclic strength, correlation function, random process

ABSTRACT: This paper, which was published to stimulate discussion, considers the estimation of the mechanical reliability of structures and assemblies, taking into account sudden and gradual failures. Failures as a whole are considered random phenomena. The problem of determining reliability comes down to studying the "over-shoots" of the random loading function of a structure at a random level of its supporting power. The formula for the fatigue reliability of a structure is given as

$$\bar{P}(t) = P_{\text{res}}(t) = 1 - \int_0^t f(t) dt =$$

$$= 1 - \int_0^t \frac{\beta t + \alpha b^2}{\sqrt{2\pi} [t^2 + b^2]^{3/2}} \cdot \exp\left(-\frac{(\beta - \alpha t)^2}{2[t^2 + b^2]}\right) dt. (17)$$

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ACC NR: AP6024295

The overall reliability under conditions of statistical independence of sudden and gradual failures is determined by

$$P_r(t) = P_s(t) P_g(t)$$

The calculations have been checked in practice. Orig. art. has: 17 formulas and 2 graphs.

SUB CODE: 13, 14/

SUBM DATE: none/

ORIG REF: 005

Card 2/2

ARISTOV, A.I.

Evaluation and analysis of the reliability of machines and  
instruments. Mashinostroitel' no.7:11-13 J1 '65.  
(MIRA 18:7)

ARISTOV, A.N., inzh.

Defects in the design of LD-10 disk harrows and ways of  
eliminating them. Sel'khoz mashina no.7:9-11 J1 '57. (MIRA 11:1)

1. Sibirskaya mashinostroytel'naya stantsiya.  
(Agricultural implements)

ARISTOV, Aleksandr Pavlovich; GUROV, S., red.; YEGOROVA, I., tekhn.red.

[Savings of millions; from the experience of industrial innovators of the Moscow Province economic region] Sbereshennye milliony; iz opyta novatorov promyshlennykh predpriatii Moskovskogo oblastnogo ekonomicheskogo raiona. Moskva, Moskovskii rabochii, 1958. 66 p. (MIRA 12:8)  
(Moscow Province--Efficiency, Industrial)

S/118/62/000/008/002/002  
D299/D309

AUTHOR: Aristov, A.P.

TITLE: Intensifying the training of engineers and  
research scientists

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, vol. 16,  
no. 8, 1962, 47 - 50

TEXT: In 1980 it is proposed to bring the number of  
students in higher educational institutions up to 8 million as  
against 2.6 million in 1961. Evening education and education  
by correspondence course has acquired an especially important  
value. Ways are being investigated of improving the quality of  
the training and augmenting the ranks of those with a scientific  
degree i.e. candidates of science and doctors of science. It is  
necessary to increase positively the contingent training in the  
universities and technical schools in the specialities of elec-  
tronics, radio electronics, mechanical engineering and others.

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S/118/62/000/008/002/002  
D299/D309

Intensifying the training ...

The growing interests of technical progress require that a large part of the specialists with high qualifications be concentrated in creative organisations developing new techniques. Research organisations should be given the right to select in the schools, specialists having a leaning towards scientific work and aid the teachers in picking out youngsters having the most aptitude for scientific research. Many organisations of the State committee have investigated the possibility of granting accomodation for drawing offices and laboratories and the creation on this basis of affiliated branches of the sections and groups of the scientific institutions. Thus branches affiliated to ЗНМ (ENINS), ВНИИЗМ (VNIEM), and ЦНИИТМАШ (TsNITMASH) were formed from the evening sections of the Moscow mechanical and power engineering evening institutions. Thus the integral relationship between industry and the educational institutions has been corrected. The engineer or technician who has grown up in these conditions does not require the third year stage of the so-called young specialist to master his profession of engineering since

Card 2/3

ARISTOV, A.P., inzh.

Exhibition of new equipment. Mekh. i avtom. proizv. 17 no.4:27-32  
Ap '63. (MIRA 17:9)

39867

S/051/62/015/002/004/014  
E032/E314

243500

AUTHORS: Aristov, A.V. and Sveshnikov, B.Ya.  
TITLE: On the effect of temperature on the kinetics of  
 $\alpha$ -phosphorescence of organic substances  
PERIODICAL: Optika i spektroskopiya, v. 13, no. 2, 1962,  
222 - 228  
TEXT: In a recent paper G.A. Mokeyeva and B.Ya. Sveshnikov  
(Optika i spektroskopiya, 10, 86, 1961) showed that the  
simultaneous study of the temperature-dependence of fluorescence  
and phosphorescence leads to the conclusion that in some  
substances the probability of transition from a fluorescent to a  
phosphorescent level increases as the vibrational energy of the  
excited molecule increases. The authors report in the present  
paper a more detailed study (as compared with the above paper)  
of the effect of temperature on the phosphorescence of organic  
luminophors. Particular attention is paid to the comparison of  
the probability of transition from the fluorescent to the  
phosphorescent state and the probability of reverse transition,  
as well as to the determination of the probabilities of  
Card 1/3

On the effect of ....

S/051/62/015/002/004/014  
E032/E314

temperature-quenching of fluorescence and phosphorescence. The luminophors were activated with fluorescein, tripoflavine and auramine. Activator concentrations between  $5 \times 10^{-6}$  and  $10^{-5}$  g/g were employed. It was found that in boron and glacial-sugar luminophors activated with fluorescein and tripoflavine, temperature-quenching at the fluorescent and phosphorescent levels is practically absent while in the case of the auramine-activated luminophors there is considerable quenching at  $20^\circ\text{C}$  at the fluorescent level but relatively low quenching at the phosphorescent level. For fluorescein-activated luminophors the temperature experiments show that the probability of transition from the phosphorescent to the fluorescent state is  $A = 2.8 \times 10^3 \text{ sec}^{-1}$ , while the probability of radiationless transition from the fluorescent to the phosphorescent state yields  $A = 3.7 \times 10^7 \text{ sec}^{-1}$ . For tripoflavine the corresponding values of  $A$  are  $1.14 \times 10^7$  and  $0.9 \times 10^7 \text{ sec}^{-1}$ . In general, the present results are considered to be good evidence in support of the theory put forward by Yablonskiy and the theoretical discussion given

Card 2/3

11531  
S/051/62/013/003/004/012  
E075/E436

AUTHORS: Aristov, A.V., Sveshnikov, B.Ya.

TITLE: On the temperature quenching of  $\beta$ -phosphorescence of organoluminofors

PERIODICAL: Optika i spektroskopiya, v.13, no.3, 1962, 383-385

TEXT: The aim of the work was to determine the probability of radiation free transition of a molecule from phosphorescent to normal state, after receiving the necessary activation energy for quenching. This probability was also compared with the probabilities of radiation-free transition from fluorescent to phosphorescent state, transition from phosphorescent to normal state with irradiation and the probabilities of transitions from the triplet to unexcited singlet states. To this end the effect of temperature on the duration, yield and intensity of phosphorescence was investigated for phosphors excited for short times and activated by esculine and phthalimide. It was found that for both the phosphors there existed temperature quenching of phosphorescence with very small values of activation energy ( $E = 0.08$  eV for esculine and  $0.05$  eV for phthalimide) and very

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L 19469-63

EWI(1)/BDS AFFTC/ASD/IJP(C)/SSD

S/2941/63/001/000/0058/0060

ACCESSION NR: AT3002195

AUTHORS: Aristov, A. V.; Sveshnikov, B. Ya. (Deceased) ~~X~~ B

TITLE: Intramolecular quenching of fluorescence 2\

SOURCE: Optika i spektroskopiya; sbornik statey. v. 1: Lyuminestsentsiya. Moscow. Izd-vo AN SSSR, 1963, 58-60

TOPIC TAGS: quenching, fluorescence, phosphorescence, organic compound

ABSTRACT: A discussion is presented on the problem of determining the mechanism of radiationless deactivation of an excited molecule in the absence of an external quenching agent. Three possible molecular states are mentioned in which this transition could take place: the state immediately after exciting leading to fluorescence, the fluorescent state, and the phosphorescent state. The hypothesis of B. Ya. Sveshnikov (ZhETF, 18, 878, 1948) is analyzed with the help of well-known phosphorescence and fluorescence yield formulae, and the conclusion is drawn that in order to verify this hypothesis (that all quenching takes place only in one electronic level) fewer equations are necessary to define the

Card 1/2

L 19469-63

ACCESSION NR: ATJ002195

mechanism of transition with greater accuracy. Orig. art. has: 5 formulas.

ASSOCIATION: none

SUBMITTED: 27Jun62

DATE ACQ: 19May63

ENCL: 00

SUB CODE: PH

NO REF SOV: 003

OTHER: 004

Card 2/2

L 18739-63

EW(1)/BDS AFFTC/ASD/IJP(C)/SSD

ACCESSION NR: AT3002201

8/2941/63/001/000/0094/0097

AUTHORS: Aristov, A. V.; Sveshnikov, B. Ya. (Deceased)

TITLE: Temperature effect on transition frequency into triplet state in organoluminophors.

SOURCE: Optika i spektroskopiya; sbornik statey. v. 1: Lyuminesentsiya. Moscow, Izd-vo AN SSSR, 1963, 94-97

TOPIC TAGS: transition probability, triplet state, vibrational energy

ABSTRACT: An experimental study was conducted to verify the validity of a hypothesis by G. A. Mokeyeva and B. Ya. Sveshnikov (Opt. i. spectr., 10, 86, 1961) that the transition probability of the activator molecule in organoluminophors into the triplet state increases with an increase in the storage of vibrational energy. Absorption intensity of phosphorescence was varied in saturated organoluminophorous light, and an average probability ratio of 2.0 was found for the two temperatures, +20 and -100C. The validity of the hypothesis was established without the need of the additional assumption requiring the absence of a

Card 1/2



L 18739-63

ACCESSION NR: AT3002201

time-dependent quenching molecule in the phosphorescent level (triplet state).  
Orig. art. has: 9 formulas.

ASSOCIATION: none

SUBMITTED: 06Apr62

DATE ACQ: 19May63

ENCL: 00

SUB CODE: PH

NO REF SOV: 005

OTHER: 000

Card 2/2

L 9853-63

EWT(1)/BDS--AFFTC/ASD/ESD-3/SSD--IJP(C)

ACCESSION NR: AP3000593

S/0051/63/014/005/0732/0734

AUTHOR: Aristov, A. V.; Sveshnikov, B. Ya. (deceased) 56

TITLE: Concerning the existence of several metastable states of the activator molecules in organic luminophors

SOURCE: Optika i spektroskopiya, v. 14, no. 5, 1963, 732-734

TOPIC TAGS: luminescence, metastable state, organic luminophors

ABSTRACT: Some results of investigation of phosphorescence of solid solutions of organic luminophors cannot be explained in the framework of the Yablonskiy model with one metastable level. In view of this some authors have introduced additional metastable levels; on the other hand, many experimental results can be explained on the assumption of the presence of physically heterogeneous centers. We propose an experiment that should make it possible to decide between the two hypotheses in many cases. The experiment is based on making measurements at a low level and a high (saturation) level of illumination. If the transitions occur to different metastable levels, their probabilities should not change with increase of the illumination intensity to above the saturation level,

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L 9853-63

ACCESSION NR: AP3000593

0  
whereas if the solution contains physically inhomogeneous centers, the molecules will be excited from different "reservoirs" and consequently the relative probabilities will be altered. The proposed experiment was carried out on phenanthrene. The results show that the phosphorescence of frozen alcohol solutions of phenanthrene cannot be attributed to two metastable states of the activator molecules. The proposed experiment should be performed with optically thin specimens to eliminate possible errors due to unequal excitations and reabsorption by the activator molecules in the ground and metastable states. Orig. art. has: 2 equations.

ASSOCIATION: none

SUBMITTED: 5Nov62

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH

NR REF SOV: 006

OTHER: 002

Card

*nh/ja*  
2/2

L 17775-63

EWI(1)/EWI(m)/BDS AFETC/ASD/ESD-3/IJP(C)/SSD RM

ACCESSION NR: AP3005857

S/0051/63/015/002/0284/0286

AUTHOR: Aristov, A.V.

TITLE: On the problem of phosphorescence under anti-Stokes excitation

SOURCE: Optika i spektroskopiya, v.15, no.2, 1963, 284-286

TOPIC TAGS: phosphorescence, anti-Stokes excitation, fluorescein, tryptaflavine

ABSTRACT: Several authors have observed that when organic phosphors are stimulated by anti-Stokes radiation the phosphorescence band shows a significant displacement towards longer wavelengths. Previous authors (P.I.Kudryashov, B.Ya.Sveshnikov, Optika i Spekt., 1, 554 (1956); G.M.Kiclyak, Ibid., 5, 297 (1958); V.A.Pilipovich, Ibid 9, 754 (1960)) have considered this effect to be peculiar to anti-Stokes excitation. The present author suggests that the effect is due to the existence of physically heterogeneous luminescent impurity centers in solid solution. Data is presented on the changes in the decay times  $\tau$  of the  $\alpha$  and  $\beta$  phosphorescence bands at temperatures where their intensities are comparable. Measurements were made on fluorescein and tryptaflavine, at temperatures of 20°, -50° and -80°C. It is found that the variation of  $\tau$  within the bands does not alter as the temperature is lowered.

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L 17775-63

ACCESSION NR: AP3005857

but that the decay time of the  $\alpha$ -phosphorescence increases more slowly than that of  $\beta$ -phosphorescence. The  $\alpha$ -phosphorescence was also studied at temperatures where it amounts to 3-5% of the overall phosphorescent intensity. This allows one to observe the  $\alpha$ -phosphorescence due primarily to those centers for which the transition probability from the metastable to the labile level is greater than for the large majority of centers. The following data were found for fluorescein at  $-50^{\circ}\text{C}$ . For  $\beta$ -phosphorescence: at  $17\,240\text{ cm}^{-1}$ ,  $\tau = 2.0\text{ sec}$ ; at  $18\,000\text{ cm}^{-1}$ ,  $\tau = 2.4\text{ sec}$ . For  $\alpha$ -phosphorescence: at  $20\,000\text{ cm}^{-1}$ ,  $\tau = 0.67\text{ sec}$ ; at  $22\,000\text{ cm}^{-1}$ ,  $\tau = 1.37\text{ sec}$ . For tryptaflavine at  $-80^{\circ}\text{C}$  and for  $\beta$ -phosphorescence: at  $16\,500\text{ cm}^{-1}$ ,  $\tau = 1.85\text{ sec}$ ; at  $18\,000\text{ cm}^{-1}$ ,  $\tau = 2.1\text{ sec}$ . For the  $\alpha$ -phosphorescence at the same temperature: at  $19\,000\text{ cm}^{-1}$ ,  $\tau = 1.0\text{ sec}$ , and at  $21\,250\text{ cm}^{-1}$ ,  $\tau = 1.26\text{ sec}$ . These data indicate that the  $\alpha$ -phosphorescence at low temperatures is a superposition of the  $\alpha$ -bands of physically heterogeneous centers. The nature of these centers requires further study. Orig.art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 11Jan63

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: PH

NO REF SOV: 008

OTHER: 001

Card 2/2

L 10159-63

EWI(1)/EWI(m)/BDS--AFFTC/ASD/

SSD--RM/MAY

ACCESSION NR: AP3000316

S/0048/63/027/005/0638/0640

AUTHOR: Aristov, A. V.; Sveshnikov, B. Ya. (deceased)

TITLE: Effect of temperature on the probability for transision of molecules to the phosphorescent state<sup>1</sup> [Report; Eleventh Conference on Luminescence held at Minsk 10-15 Sept. 1962]

SOURCE: Izvestiya AN SSSR. Seriya fizicheskaya, v. 27, no. 5, 1963, 638-640

TOPIC TAGS: molecular luminescence, metastable state, fluorescein, tryptaflavine

ABSTRACT: Evidence in favor of the Yablonskiy single metastable level molecular model is furnished by the good agreement of the activation energy for return of the molecule from the metastable (phosphorescent) state to the fluorescent state obtained from temperature experiments with the energy difference between the fluorescent and metastable levels found from comparison of low temperature fluorescence and beta-phosphorescence spectra. A further argument in favor of the single metastable level model may be furnished by comparison of the probability for the fluorescent to metastable state transition with the probability for the reverse transition of a metastable molecule imparted the necessary activation energy. The purpose of the present study was to do this on the basis of the data

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L 10159-63  
ACCESSION NR: AP3000316

for solid solutions of fluorescein (in boric acid) and tryptaflavine (in sugar).  
It is found that the forward and reverse transition probabilities and the values  
of the activation energy from temperature and spectroscopic experiments agree  
within the limits of the experimental error, thus validating the Yablonskiy model.  
In conclusion, it is pointed out that the Yablonskiy model can be used for  
calculating all the transition probabilities at one temperature. Orig. art. has:  
8 equations and 1 table.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH

NR REF SOV: 005

OTHER: 000

Card 2/2

ARISTOV, A.V.

114-11-7/10

AUTHOR: Lisitsyn, D.I., Engineer, and Aristov, A.V., Engineer.

TITLE: The Technology of Production of Steam and Water Turbines at the Leningrad Metal Works. (Tekhnologiya proizvodstva parovykh i gidravlicheskikh turbin na Leningradskom Metallicheskom Zavode.)

PERIODICAL: Energomashinostroyeniye, 1957, Vol.3, No.11, pp.31-35, (USSR)

ABSTRACT: The article commences with a general review of the development of turbine manufacture at the works from about 1924. The development of the factory was much hindered by the war. The works maintained contact with the design office which was evacuated to the Ural but which, in 1943, commenced preparations for the restoration of turbine production and commenced the design of new steam and hydraulic turbines. In 1945, the works began to manufacture turbines to these new designs. All the patterns and rigs made before 1941 were destroyed during the war and so new drawings were prepared without reference to existing patterns and tools. This facilitated the extensive introduction of advanced production methods. The works was soon producing turbines of up to 100 MW and later turbines of 150 MW and gas turbines with a useful output of 12 MW. At the same time, water Card 1/4 turbines were produced including those of the Kaplan type for



114-11-7/10

The Technology of Production of Steam and Water Turbines at the Leningrad Metal Works.

the Kuybyshev and Stalingrad Power Stations with a unit output of 126 MW at a maximum head of 30 m.

Whilst the machines were being designed and manufactured, plans were made to reconstruct the main workshop so as to increase the output of turbines by a factor of two or three without increasing the amount of space taken up.

New methods of manufacturing steam and water turbines were developed. Important changes were made in the methods of manufacturing water turbines by the use of specialised machine tools which greatly increased the productivity of labour. Development of the technology of manufacture of steam and water turbines is along the following main lines.

The shape of the rough parts is being made as near as possible to that of the finished parts, for example, by the use of hot stampings in the manufacture of blades.

Welded construction is being particularly widely used. In steam turbines welded and welded-cast constructions are being used in the high-pressure cylinders, the exhaust parts of the low pressure cylinders, and in high pressure discs. In water turbines, welding is being used in stators, in the working wheel chambers in the turbine covers, in the upper and lower rings of Card 2/4 the guide vane apparatus and elsewhere. Fig. 1 illustrates the

114-11-7/10

The Technology of Production of Steam and Water Turbines at the Leningrad Metal Works.

use of electro-slag welding of shafts for water turbines.

There is a strong tendency to make parts to close tolerances so that they are replaceable and do not require hand fitting. This principle is being extended to the manufacture of steam turbine rotors and also to certain parts of water turbines which have to be despatched for erection six months before delivery of the turbine.

Laborious and manual work has been mechanised to a very large extent. For example, the blades of water turbines are now machined whereas formerly they used to be shaped by hand. A machine tool used for this purpose is illustrated in Fig.3. Grinding of blades has also been mechanised as will be seen from the machine illustrated in Fig.4. The grinding of spherical surfaces on the bearings of steam turbines, that was formerly a manual operation, is now done by machine, as shown in Fig.5. Improvements have been made in the hydraulic testing of steam turbines by the use of special seals to blank off apertures in the cylinders. This is illustrated in Fig.7.

Many small tools and jigs have been improved; an example of this is the use of a special roller cutter to generate large Card 3/4 threads illustrated in Fig.8.

SMOLYAROV, L.G.; ARISTOV, A.V.

Hydraulic turbines used at the Kuybyshev Hydroelectric Power Station.  
Biul.tekh.-ekon.inform. no.9:33-36 '58. (MIRA 11:10)  
(Kuybyshev Hydroelectric Power Station--Hydraulic turbines)

ARISTOV, A-V

57

PHASE I BOOK EXPLOITATION SOV/5460

Leningradskiy metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Nekotoryye voprosy tekhnologii proizvodstva turbin (Certain Problems in the Manufacture of Turbines) Moscow, Mashgiz, 1960. 398 p. (Series: Its: Trudy, vyp. 7) Errata slip inserted. 2,100 copies printed.

Sponsoring Agency: RSFSR. Sovet narodnogo khozyaystva Leningradskogo ekonomicheskogo administrativnogo rayona, Upravleniye tyazhelogo mashinostroyeniya, and Leningradskiy dvazhdy ordena Lenina metallicheskiy zavod. Otdel tekhnicheskoy informatsii.

Ed. (Title page): G. A. Drobilko; Editorial Board: Resp. Ed.: G. A. Drobilko, B. A. Glebov, A. M. Mayzel', and M. Kh. Mernik; Tech. Ed.: A. I. Kontorovich; Managing Ed. for Literature on Machine-Building Technology: Ye. P. Naumov, Engineer, Leningrad Department, Mashgiz.

PURPOSE: This collection of articles is intended for technical personnel in turbine plants, institutes, planning organizations, as well as for production innovators.  
Card-1/12

Certain Problems (Cont.)

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SOV/5460

COVERAGE: The experience of the LMZ (Leningradskiy metallicheskiy zavod - Leningrad Metalworking Plant) in the manufacture of modern large-capacity turbines is presented. Methods for the rationalization of basic manufacturing processes and for the mechanization and automation of manual operations are given. Descriptions of attachments and tools designed by LMZ for improving labor productivity and product quality are provided, and advanced inspection methods discussed. References accompany some articles. No personalities are mentioned. There are 26 references: 25 Soviet and 1 English.

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SOV/5460

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Dolgov, V. A. [Engineer], and S. D. Kuzinets [Engineer]. The Manufacture of Rims and Blades for Radial-Flow Turbines

98

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117

Shklovskiy, M. M. [Engineer], and M. L. Vakhter [Engineer]. The [Ball-] Burnishing of Stainless and Austenitic-Steel Wire

125

II. THE MECHANIZATION AND AUTOMATION OF LABOR-CONSUMING OPERATIONS

Card 4/42

S/123/61/000/014/017/045  
A004/A101

AUTHOR: Aristov, A. V.

TITLE: Manufacturing high-pressure screw pumps

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 14, 1961, 13, abstract 14B71 (V sb. "Nekotoryye vopr. tekhnol. proiz-va turbin". [Tr. Leningr. metallich. z-da, no. 7]. Moscow - Leningrad, 1960, 117-124)

TEXT: The author describes the manufacturing technology of the driving and driven screws and the jacket of oil screw pumps with cycloid meshing introduced at the LMZ. The screws have a special double thread, the driving screw having a right-hand and the driven screw a left-hand thread. The length of the section being threaded is 320 mm. The screws are threaded on a multipurpose milling machine with a cutting disk. For the setting of the machine table at the given angle a special templet is used. Special rests are used to prevent the screws from buckling. During the rough milling the screws are fastened in a draw-in attachment, during finish milling between centers. The jacket apertures are broached. For this purpose 3 holes are preliminarily drilled and bored and

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S/123/61/000/014/017/045  
A004/A101

Manufacturing high-pressure screw pumps

filled with babbitt. At the beginning, the center hole is broached, then the lateral holes are machined with an assembled broach. Such a technology ensures the necessary interchangeability of the pump screws. There are 7 figures.

L. Bozin

[Abstracter's note: Complete translation]

Card 2/2



ARISTOV, A.V.

Turbines for the Bratsk Hydroelectric Power Station. Biul.tekh.-ekon.-  
inform. no.11:52-55 '61. (MIRA 14:12)  
(Bratsk Hydroelectric Power Station) (Hydraulic turbines)

L 04597-67 EWT(m)/EWP(j) RM

ACC NR: AP6033444

SOURCE CODE: UR/0051/66/021/004/0514 / 0515

AUTHOR: Aristov, A. V.; Maslyukov, Yu. S.; Reznikova, I. I.

37  
B

ORG: none

TITLE: Luminescence of europium chelate solution excited by high-intensity pulsed radiation

SOURCE: Optika i spektroskopiya, v. 21, no. 4, 1966, 514-515

TOPIC TAGS: stimulated emission, chelate, europium chelate, *EUROPIUM COMPOUND, CHELATE COMPOUND, LUMINESCENCE*

ABSTRACT: Luminescence of a frozen (-150C) alcohol solution of europium chelate was studied experimentally. The solution was placed in a simple cell 100 mm long with a 3.5-mm internal diameter with fixed plane mirrors, whose transmission in the 6130 Å region was from 1 to 6%. Silver-coated reflectors on a quartz substrate were used as contacts. A fresh solution of europium chelate trioxide with benzoyl acetone and piperidine, EuB<sub>4</sub>HP, was synthesized according to directions given elsewhere (M. L. Bhaumik, J. Phys. Chem., 68, 3, 1490, 1964) and had concentrations of  $9 \cdot 10^{18}$  molecules/cm<sup>3</sup>. The crystals exhibited red triboluminescence. The solution was pumped by two xenon flashlamps in a two-lobe elliptical reflector through a violet and u-v filter. The resultant luminescence along the optical axis was beamed at a UM-2 monochromator and an FEU-17 photomultiplier and an oscillograph. Time variation of the

Card 1/2

UDC: 535.37 : 541.49 : .546.66

L 04597-67

ACC NR: AP6033444

intensity of optical excitation and the solution's luminescence in the 3000—4300 Å region was observed and analyzed for pumping energies from 1350 to 2400 j (threshold energy 1800 j). Stimulated emission of the solution was observed at 6130 Å and at a pumping energy of 2400 j. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 30Nov65/ ORIG REF: 004/ OTH REF: 014/ ATD PRESS: 5100

Card

2/2

*fdh*

ARISTOV, A.V.; SVESHNIKOV, B.Ya.

Determining the frequencies of transitions between the different states of the activator molecule in organic phosphors. Dokl. AN SSSR 141 no.3:586-589 N '61. (MIRA 14:11)

1. Predstavleno akademikom A.N. Tereninym.  
(Phosphors)

ARISTOV, A.V.; YERMOLAYEV, V.L.; LEVSHIN, V.L.; MOKEYEVA, G.A.; CHERKASOV, A.S.;  
SHIROKOV, V.I.

Boris Iakovlevich Sveshnikov; obituary. Usp. fiz. nauk 81 no.1:  
201-210 S '63. (MIRA 16:12)


S/065/62/000/008/001/003  
E075/E135

AUTHORS: Aristov, B.G., Kiselev, A.V., Mirskiy, Ya.V.,  
Pavlova, L.F., and Petrova, R.S.

TITLE: Adsorption from vapours and from solutions on  
molecular sieves

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.8, 1962,  
7-12

TEXT: Results are given of the investigation of adsorption of vapours of H<sub>2</sub>O, N<sub>2</sub>, Kr, n-hexane, benzene and isooctane, and also adsorption from liquid solutions of n-hexane, benzene on porous crystals of zeolites of the 4A and 5A type. The adsorption isotherms of vapours of H<sub>2</sub>O, N<sub>2</sub>, Kr and n-hexane on the sieve 5A rise steeply at first and rapidly reach the saturation stage. The adsorption of benzene and isooctane remains very small. The adsorption isotherm of n-hexane from solution in benzene was measured on the 5A sieve. The filling of the pores with n-hexane begins at practically negligible concentrations of n-hexane and subsequently only some additional packing of adsorbed molecules takes place. The maximum value for the full packing is reached at Card 1/2



S/069/62/024/005/001/010  
B107/B186

AUTHORS: Aristov, B. G., Davydov, V. Ya., Drogaleva, I. V.,  
Karnaukhov, A. P., Kiselev, A. V., Korolev, A. Ya., Polyakov,  
A. L.

TITLE: The modification of highly dispersed silica aerosil by  
hydrothermal treatment

PERIODICAL: Kolloidnyy zhurnal, v. 24, no. 5, 1962, 513 - 521

TEXT: The influence of temperature and duration of hydrothermal treatment on the aerosil's specific surface area and power to adsorb nitrogen is systematically studied, and some samples were examined by electron microscope. The original material was industrial aerosil prepared by high-temperature hydrolysis of  $\text{SiCl}_4$  as well as the material BK-1 (VK-1) prepared by burning off silico-organic compounds. The hydrothermal treatment was accomplished at 120 - 410°C in periods ranging between 4 and 132 hr, after which the samples were dried at 150°C and their adsorption of nitrogen at its boiling point was measured. From this the specific surface area was calculated by the BET method. Results in  
Card 1/4

The modification of highly dispersed...

S/069/62/024/005/001/010  
B107/B186

Table 1 show that the specific surface diminishes with increasing temperature and duration of hydrothermal treatment. Electron microscope exposures showed that this is due to coarsening of the particles. If the absolute amount of adsorption is plotted against  $p/p_s$  (where  $p_s$  is the saturation vapor pressure of the nitrogen) a very reproducible isotherm is obtained (Table 2). Within the range  $p/p_s = 0.015 - 0.3$  this can be

represented by the BET equation:  $\alpha = \frac{\alpha_m C p/p_s}{(1-p/p_s)[1+(C-1)p/p_s]}$  with

$\alpha_m = 10.25 \mu\text{mol}/\text{m}^2$ ,  $C = 164$ . In the range  $p/p_s = 0.2 - 0.8$  the isotherm conforms to Halsey and Hill (references see below). As formulated by Pierce (reference see below) this reads  $(\alpha/\alpha_m)^{2.75} = (\alpha/10.25)^{2.75}$

$= 1.30/\log(p/p_s)$ . It is pointed out that this isotherm makes it possible to determine the specific surface area of a nonporous or large-pore silica with hydrated surface area from a single experimentally fixed point, according to the equation  $s = a/\alpha \text{ m}^2/\text{g}$  ( $a$  being the adsorption in  $\mu\text{mol}/\text{g}$  and  $\alpha$  the value of the isotherm for the same  $p/p_s$ ). There are

Card 2/4



The modification of highly dispersed...

S/069/62/024/005/001/010  
B107/B186

6 figures and 2 tables. The most-important English-language references are: G. D. Halsay, J. Chem. Phys., 16, 931, 1948; T. L. Hill, J. Chem. Phys., 17, 590, 1961; C. Pierce, J. Phys. Chem., 63, 1076, 1959; 64, 1184, 1960.

ASSOCIATION: Moskovskiy universitet, Khimicheskiy fakul'tet (Moscow University, Division of Chemistry)

SUBMITTED: September 9, 1961

Table 1. Specific surface area ( $m^2/g$ ) of aerosil in dependence on temperature and duration of hydrothermal treatment in an autoclave. The specific surface area of the initial aerosil was  $187 m^2/g$ . Legend: 1. Temperature in  $^{\circ}C$ ; 2. Duration of treatment in hr; 3. Specific surface area in  $m^2/g$ .

Table 2. Absolute amount of nitrogen gas adsorbed, at its boiling point, on hydrated samples of nonporous amorphous silica. The surface area covered by a molecule of nitrogen corresponding to a monolayer of ( $\omega_m$ ) thickness is put at  $16.2 \text{ \AA}$  and the degree of filling  $\theta = \alpha/\alpha_m$ , wherefrom Card 3/4

The modification of highly dispersed...

S/069/62/024/005/001/010  
B107/B186

$\alpha_m$ , the capacity of the monolayer works out as  $1/\omega_m = 10.25 \mu\text{mol}/\text{m}^2$ .

Legend: 1.  $\alpha$ ,  $\mu\text{mol}/\text{m}^2$ .

Table 1

Температура, °C	2. Вязкость, сПз			
	4	8	19,5	132
120	177	187	174	160
200	158	142	142	109
275	120	132	111	46
350	60	—	50	33
410	—	—	23	—

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Table 2

$p/p_s$	$\frac{\alpha}{\mu\text{mol}/\text{m}^2}$	$\theta = \frac{\alpha}{10,25}$	$p/p_s$	$\frac{\alpha}{\mu\text{mol}/\text{m}^2}$	$\theta = \frac{\alpha}{10,25}$	$p/p_s$	$\frac{\alpha}{\mu\text{mol}/\text{m}^2}$	$\theta = \frac{\alpha}{10,25}$
0,00003	2,00	0,195	0,0013	4,57	0,446	0,260	13,40	1,307
0,00005	2,25	0,220	0,0024	5,00	0,488	0,300	14,00	1,366
0,00008	2,50	0,244	0,0037	5,40	0,527	0,350	14,70	1,434
0,00010	2,65	0,259	0,0055	5,90	0,576	0,400	15,30	1,493
0,00013	2,85	0,278	0,0075	6,45	0,629	0,450	16,50	1,610
0,00017	3,05	0,298	0,0105	6,70	0,654	0,500	17,25	1,683
0,00020	3,20	0,312	0,014	7,40	0,722	0,550	18,05	1,761
0,00023	3,30	0,322	0,025	8,30	0,810	0,600	19,00	1,854
0,00027	3,40	0,332	0,040	9,00	0,878	0,650	20,10	1,931
0,00031	3,50	0,341	0,080	9,80	0,956	0,700	21,30	2,078
0,00037	3,60	0,351	0,080	10,30	1,005	0,750	22,70	2,215
0,00043	3,70	0,361	0,100	10,80	1,054	0,800	24,40	2,380
0,00051	3,82	0,373	0,130	11,40	1,112	0,850	26,50	2,585
0,00060	3,94	0,384	0,160	11,90	1,161	0,900	30,30	2,956
0,00075	4,13	0,403	0,190	12,40	1,210	0,950	37,65	3,673
0,00095	4,35	0,424	0,220	12,80	1,249			

S/069/62/024/006/001/009  
B101/B180

AUTHORS: Aristov, B. G., Babkin, I. Yu., Kiselev, A. V.

TITLE: Adsorption and heat of adsorption of vapors on alkoxyated silica

PERIODICAL: Kolloidnyy zhurnal, v. 24, no. 6, 1962, 643 - 647

TEXT: Aerosil gels containing groups of 1, 4, or 8 C atoms on their surface were obtained by treating aerosil with absolute methanol at 300°C, or with n-butanol or n-octanol at 280°C and by subsequent evacuation. The specific surface of the aerosils remained unchanged. When vacuum heated the modified layer of the butoxylated specimen was stable up to 350°C. Modification of the surface lowered the N<sub>2</sub> adsorptive capacity at -195°C and the adsorption heat of H<sub>2</sub>O, CH<sub>3</sub>OH, and C<sub>6</sub>H<sub>6</sub>. At low degrees of adsorption, the surface showed marked energetic inhomogeneity, particularly the methoxylated one. The adsorption isotherms of H<sub>2</sub>O, CH<sub>3</sub>OH, and C<sub>6</sub>H<sub>6</sub>, became convex. Adsorption decreases as the length of the modifying radical increases, C<sub>6</sub>H<sub>6</sub> being adsorbed more strongly than CH<sub>3</sub>OH. This is attributed

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Adsorption and heat of...

S/069/62/024/006/001/009  
B101/B180

to the increasing contribution of the entropy term in the equation for the adsorption equilibrium  $C_6H_6$  molecules adsorbed on a layer of long radicals are less mobile than in the liquid state, while methanol molecules are firmest on a methoxy layer. As the imperfections of the modified aerosil surface are completely covered by water even at a small  $p/p_s$  ratio, adsorption will be very low at a high  $p/p_s$  ratio. There are 4 figures and 1 table. ✓

ASSOCIATION: Moskovskiy universitet, Khimicheskiy fakul'tet, Laboratoriya adsorbtsii i gazovoy khromatografii (Moscow University, Division of Chemistry, Laboratory of Adsorption and Gas Chromatography)

SUBMITTED: September 4, 1962

Card 2/2

ARISTOV, B.G.; KARNAUKHOV, A.P.; KISELEV, A.V.

Theory of the corpuscular structure of adsorbents. Part 3:  
Simultaneous adsorption and capillary condensation. Zhur.fiz.khim.  
36 no.10:2153-2161 O '62. (MIRA 17:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,  
khimicheskiy fakul'tet.

ARISTOV, B.G.; KARNAUKHOV, A.P.; KISELEV, A.V.

On the corpuscular theory of the structure of adsorbents.

Pt. 4. Zhur. fiz. khim. 36 no.11:2486-2490 N'62.

(MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,  
khimicheskiy fakul'tet.

ARISTOV, B. G.; DAVYDOV, V. Ya.; KARMAUKHOV, M. P.; KISELEV, A. V.

Corpuscular theory of the structure of adsorbents. Part 5:  
Adsorption of nitrogen and carbon tetrachloride vapors on  
model adsorbents obtained by compression of aerosols. Zhur. fiz.  
khim. 36 no.12:2757-2763 D '62. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova i  
Institut fizicheskoy khimii AN SSSR.

(Adsorbents) (Nitrogen) (Carbon tetrachloride)

L 12730-63

ACCESSION NR: AP3002285

EPR/EPF(c)/EWP(j)/EWT(m)/BDS

AFFTC/ASD

Ps-L/Pr-L/Pc-L

RM/WW

S/0062/63/000/006/1017/1022

75

73

AUTHOR: Aristov, B. G.; Babkin, I. Yu.; Borisova, F. K.; Kiselev, A. V.; Korolev, A. Ya.

TITLE: Changing the surface properties of polyethylene by oxidative treatment

SOURCE: AN SSSR. Izv. Otdeleniye khimicheskikh nauk, no. 6, 1963, 1017-1022

TOPIC TAGS: surface properties, polyethylene, oxidizing, surface polarity, adhesive properties, adsorption

ABSTRACT: Treating polyethylene with an oxidizing chrome composition (potassium dichromate and sulfuric acid) for 5 minutes at temperatures below 120 degrees sharply increased its surface polarity, thus improving its adhesive properties, permitting gluing with polar adhesives and printing with inks. Oxidative treatment of low-pressure powdered polyethylene hardly changes its specific surface, as determined by very little difference in low-temperature adsorption of nitrogen between untreated and strongly oxidized material. However, the irreversible adsorption of water and the heat of adsorption were greatly increased, this adsorption being proportional to the degree of oxidation of the sample. Orig. art. has: 3 figures and 1 table.

Association: Moscow St. Un., Inst. of Physical Chemistry

Card 1/2



ARISTOV, B.G.; BARKIN, I.Yu.; DAVYDOV, V.Ya.; KISELEV, A.V.

Effect of the compression of aerosil on the adsorption energy of  
nitrogen and carbon tetrachloride vapors. Zhur.fiz.khim. 37 no.10:  
2372-2374 0 '63. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova i Institut  
fizicheskoy khimii AN SSSR.

ARISTOV, B.G.; KISELEV, A.V..

Effect of dehydration of the silica surface on the adsorption  
isotherms of nitrogen and argon vapors.. Zhur. fiz. khim. 37  
no.11:2520-2528 N'63. (MIRA 17:2)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy gosudarstvennyy  
universitet imeni Lomonosova, khimicheskoy fakul'tet.

ARISTOV, B.G.; KISELEV, A.V. (Moscow)

Effect of the dehydroxylation of silica surface on the heats of adsorption of nitrogen and argon vapors. Zhur.fiz.khim. 38 no.8:1984-1989 Ag 164.  
(MIRA 18:1)

1. Institut fizicheskoy khimii AN SSSR i Khimicheskii fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.

ARISTOV, B.G.; KISELEV, A.V.

Absolute values of nitrogen and argon vapor adsorption on hydroxylated and dehydroxylated nonporous and wide-porous silica surfaces. Koll.zhur. 27 no.3:299-306 My-Je '65.

(MIRA 18:12)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy gosudarstvennyy universitet, khimicheskiy fakul'tet.  
Submitted Jan. 4, 1964.

ARISTOV, D.P. [Arystov, D.P.]

Mechanization and automation of production processes in the  
Kherson Cotton Combine. Leh. prom. no. 4:46-48 O-D '64  
(MIRA 18:1)

SHISHKINA, Nina Nikolayevna; NAZAROV, Arkadiy Stepanovich;  
ARISTOV, D.V., retsenzent; GUL', V.Ye., retsenzent;  
D'YAKONOVA, .P., spets. red.; NOZDRINA, V.A., red.

[Use of polymeric films for the packaging of meat products] Primenenie polimernykh plenok dlia upakovki miasoproduktov. Moskva, Pishchevaia promyshlennost', 1965.  
131 p.  
(MIRA 18:7)

ARISTOV, F.M.; SHTERN GAS, Ya.S.

Output of linoleum has increased 50%. Stroi. mat. 10 no.3:  
6-7 Mr '64. (MIRA 17:6)

1. Direktor Khlyupinskogo zavoda linoleuma (for Aristov).
2. Glavnyy inzh. Khlyupinskogo zavoda linoleuma (for Shtern gas).

VORONOV, S.M., doktor tekhnicheskikh nauk; ARISTOV, G.A., redaktor

[Hardening of aluminum-manganese-silicon alloys and their new industrial compositions] Protsessy uprochneniia splavov aliuminii-magnii-kremnii i ikh novye promyshlennye kompozitsii. Moskva, Gos. izd-vo obor. promyshl., 1946. 151 p. (MLRA 9:10)

(Aluminum-manganese-silicon alloys--Hardening)



ARISTOV, G A .

Ogneupornyye Izdeliya Dlya Razlivki  
Stali (Refractory Materials for Steel Casting)  
Sverdlovsk, Metallurgizdat, 1953 .  
270 P. Illus., Diagra., Tables.  
"Literatura": P (265)-267

SO: N/5  
615.64  
.A7

ARISTOV, D.V.; ZISKINDER, V.Kh.; SHAPIRO, I.Ye.; TARAKHOVSKAYA, N.K.,  
red.; LYSENKO, G.A., tekhn.red.

[Modern automatic machines for packaging and packing food  
products] Sovremennye avtomaty dlia rasfasovki i upakovki  
pishchevykh produktov. Moskva, Vses.in-t nauchnoi i tekhn.  
informatsii, 1961. 102 p. (MIRA 14:6)  
(Packaging machinery) (Food industry--Equipment and supplies)

ARISTOV, G. A.

"Results of the December session of the astronomy group, academy of science USSR,"  
Astron. Zhur., 16, No. 2, 1939.

U-1518, 23 Oct. 1951

SO: MLRA

ARISTOV, G. A.

"Is There Any Life on Other Planets?" book, 1948

ARISTOV, G. A.

G.A. Aristov

Formation of the solar system

Pub. by the Acad. of Sci. of USSR Scientific Popular Section

1950, 179 pages

From: Monthly list of Russian Acquisitions, Aug. 1951, Vol. 4, No. 5, P. 5  
(Trans. Copy)

ARISTOV, G

A

EPP  
.R93CC9

ZA MATERIALISTICHESKOYE MIROVOZZRENIYE V ASTRONOMII. MOSKVA, IZD-VO ZNANIYE, 1952.

30 (2) P. (VSESOUZNOYE OBSHCHESTVO PO RASPROSTRANENIYU POLITICHESKIKH I NAUCHNYKH  
ZNANIY. 1952, SERIYA 2, NO. 63)

BIBLIOGRAPHY: P. (32)

RUSSIA

ARISTOV, G

A

Solntse [Sun] izd. 2. perer. Moskva, Gosudarstvennoye izd-vo Tekhniko-  
Teore-ticheskoy Literatury, 1953.

61 p. illus., diagrs. (Nauchno-Populyarnaya Biblioteka, vyp. 53)

"Chto Chitat' o Solntse": p. [63]

N/5  
612.3  
.47  
1953

KUSHNIR, Yu.M.; ARISTOV, G.A.; CHENTSOV, R.A. [authors]; KUZNETSOV, V.A., inzhener-kapitan [reviewer].

Shortcomings of three booklets ("Soviet electronic microscopy" IU.M.Kushnir; "For a materialistic world outlook in astronomy," G.A.Aristov; "Physics of low temperatures," R.A.Chentsov. Reviewed by V.A.Kuznetsov). Nauka i zhizn' 20 no.7:47-48 J1 '53. (MLRA 6:7)

(Science--Bibliography) (Kushnir, IU.M.) (Chentsov, R.A.)  
(Aristov, G.A.)



ARISTOV, G.A.; MEZENTSEV, V.A., redaktor; TUMARKINA, N.A., tekhnicheskii  
redaktor

[The sun] Solntse. Izd. 3-e, perer. Moskva, Gos. izd-vo tekhniko-  
teoreticheskoi lit-ry, 1954. 38 p. (Nauchno-prosvetitel'naiia bib-  
ka, no.4). (MIRA 8:7)  
(Sun)

ARISTOV, G. A.

USSR/Astronomy - Book review

Card 1/1 : Pub. 77, 25/26

Authors : Aristov, G. A.

Title : In the realm of planets and stars

Periodical : Nauka i zhizn' 21/7, 47, July 1954

Abstract : Review of the book, "Sketches from the Universe," by B. A. Vorontsov-Belyaminov, in which the reviewer finds material in support of materialism.

Institution : ...

Submitted : ...

ARISTOV, G.

Stars with tails. Tekh.mol. 22 no.10:11-14 0 '54. (MLRA 7:11)  
(Comets)

ARISTOV, Grigoriy Andrianovich; RAKHLIN, I., redaktor; SHEVELEVA, A.,  
redaktor; IGHAT'YENVA, A., tekhnicheskiiy redaktor

[Infinite universe] Vselennaya beskonechna. [Moskva] Mo-  
skovskii rabochii, 1955. 110 p. (MIRA 9:3)  
(Cosmogony)

ARISTOV, G.A.

The sun and life on the earth. Nauka i shizn' 22 no.5:44-48  
My '55 (Solar radiation) (MLRA 8:6)

ARISTOV, G. A

"The Sun and its family" M. Ivanovskii. Reviewed by G. Aristov.  
Tekh. mol. 23 no. 11:33 N'55. (MIRA 8:12)  
(Sun) (Ivanovskii, M.)

**Xristov, G. G., and Fedorov, V.** COLORING OF SILICA BRICK FROM CRYSTALLINE QUARTZITES OF THE KARAKULNAYA MOUNTAINS. *Ogneupory*, 5 [12] 82-84 (1937).—The causes for discoloration of silica brick are the chemical heterogeneity of the mix due to a chemical heterogeneity of quartzite and the soiling of the latter with oxides of iron, aluminum, and calcium and silicates. These brick yield better physicochemical and thermomechanical indices than silica brick of a uniform color.

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<p>Testing of silica bricks in the roof of the open-hearth furnace. G. Aristov. <i>Ogneupory</i> 1939, No. 3, 330-00; <i>Khim. Refert. ZHUR</i>, 1939, No. 9, 70.—Silica bricks after service in the roof of an open-hearth furnace were characterized by a large gray zone (25% of the length of the bricks) and by a comparatively high SiO<sub>2</sub> content in the gray zone (94.65%). W. R. Henn</p>																																																			
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<p>Increasing the activity of Roman cement. G. Aristov  <i>Keramika</i> 1939, No. 6, 54-6.—The activity of Roman                      cement can be increased by adding about 2% by wt. of                      slaked lime. The mechanical strength of activated cement                      is higher. E. R. Stefanowsky</p>																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										FROM BOWLING									
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1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
<p>ARISTOV, G.G.</p> <p>19</p> <p>Quartzites of the Karaul'naya Mountain. G. G. Aristov, <i>Ogneupory</i> 8, 274-82 (1940).—The chem. phys. and technical characteristics of these quartzites, a principal source of raw materials of the Ural silica-brick industry, are given. B. R. Stefanowsky</p>																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
<p>1ST AND 2ND ORDERS</p>										<p>3RD AND 4TH ORDERS</p>									

ARISTOV, G.G.

UNFIRED MAGNESITE LADLES. G. G. Aristov. Summary, 10 [6] 15-16 (1945). — The ladles were prepared from pure magnesite with liquid glass as a binder. Alkalinity of the mass (calculated as  $\text{Na}_2\text{O}$ ) was 2 to 8%, and moisture was 7.5% to 8%. The ladles were shaped under a pressure of 50 kg./cm.<sup>2</sup> and dried at 40° to 50° for 4 to 5 days. Physical properties of the ladles varied considerably from top to bottom; compression strength was 130 to 250 kg./cm.<sup>2</sup>, porosity 19 to 26%, and bulk weight 2.6 to 2.3 gm./cm.<sup>3</sup>. A specimen prepared from this mass was deformed at 1230° under a load of 2 kg./cm.<sup>2</sup>. B.Z.K.

Aristov, G. G.

BCS

*Manufacturing Processed  
Drying*

251. The causes of blisters on the inside of hollow casting jet accessories. G. G. Aristov (Opyesovoy, 16, 300, 1951). Small-scale expts. were carried out on the formation of blisters during the drying of hollow refractories (sleeves, guide-tubes, etc.). It was found that the blisters were due to lamination and were caused by a non-uniform and insufficient feeding of the making machine. The trouble was aggravated by factors that reduced the permeability of mixes such as high plasticity, use of thick non-volatile lubricants, fine grain-size of grog, etc. (2 figs., 2 tables.)

ARISTOV, G. G.

3

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12863 Refractories for the Bottom-Pouring of Steel. G.  
G. Aristov, Henry Bratcher, Alhambra, Calif., translation no.  
8271, 12 p. (From *Ogneupory*, v. 17, no. 8, 1952, p. 364-370.)  
Importance of quality refractories for minimum dirt content in  
steel ingots. Photographs, tables, 8 ref.

ARISTOV, G.G.

[Refractory articles for pouring steel] Ogneupornye izdeliia dlia razlivki stali. Sverdlovsk, Gos.nauchno-tekhn.isd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1953. 270 p.

(MLBA 6:12)

(Refractory materials) (Steel industry)

ARISTOV, G.G.

Standardizing the properties of materials used for steel-pouring  
equipment. Ogneupery 18 no.6:257-259 Je '53. (MIRA 11:10)

1. Glavuralmet.

(Smelting--Equipment and supplies)

(Refractory materials--Standards)

ARISTOV, G.G., insh.

~~Manufacture and use of unfired chrome-magnesite bricks.~~

Ogneupory 19 no.6:248-255 '54.

(MIRA 11:10)

(Firebricks)



ARISTOV, Gleb Georgiyevich; OGARKOV, A.F., redaktor; V.P.KEL'NIK, redaktor;  
KOVALENKO, N.I., tekhnicheskii redaktor.

[Technical control in the production of refractory material; manual  
for a course for specialists] Tekhnicheskii kontrol' proizvodstva  
ogneuporov; uchebnoe posobie dlia kursov masterov. Sverdlovsk, Gos.  
nauchno-tekhn. isd-vo lit-ry po chernoi i tsvetnoi metallurgii,  
Sverdlovskoe otd-nie, 1955.276 p. (MIRA 9:4)  
(Refractory materials)

*ARISTOV, G. G.*

USSR /Chemical Technology. Chemical Products  
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31578

Author : Strellov K.K., Aristov G.G., Saparov V.V.

Title : Production of Unfired Magnesite-Chromite Articles  
for Vaults

Orig Pub: Ogneupory, 1956, No 4, 145-149

Abstract: Production of unfired magnesite-chromite articles  
for vaults has been put into effect at 3 plants  
of Glavuralmet. Composition of paste (in % by  
weight): chromite (0.5 - 3 mm) 30, magnesite  
supplied by KNR (Chinese People's Republic ?),  
70, or mixture of magnesite powder (30-40% 3-0 mm)  
and magnesite brick scrap (40-30% less than

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